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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/778,678	02/07/2001	Robb Richard Gardner	7970M	4103

27752 7590 11/21/2002

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INTELLECTUAL PROPERTY DIVISION  
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CINCINNATI, OH 45224

EXAMINER

SALVATORE, LYNDIA

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/778,678

Applicant(s)

GARDNER ET AL.

Examiner

Lynda M Salvatore

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 23, and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2-22 are further rejected for their dependency on claim

1.

3. Claims 1, 23, and 24 are indefinite because it is unclear to the Examiner what the Applicant means by "enhanced fabric benefits". In other words, "enhanced" as compared to what?

***Claim Rejections - 35 USC § 102/103***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 1-4, 7, 8, 12, and 15-24 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takumi, Japanese Publication 05-059664.

The publication of Takumi discloses a method for providing a fiber product with flexibility, anti-wrinkling, and anti-shrinking. The cellulosic fiber of the present invention may include regenerated cellulose, polynosic textiles, knits, and non-woven textiles (Section 0005). The fiber finishing method includes the steps of immersing a cellulosic fabric in a solution of polyethylene glycol having a molecular weight ranging from 90-5000 gm/mol, drying said fabric, exposing said fabric to formaldehyde vapor in the presence of a catalyst such as sulfur acid gas, and heat curing (Abstract and Section 0009). The amount of polyethylene glycol used may range from .1 to 10 weight percent. The treated fabric is said to have good anti-shrinking, permanent press, an outstanding wash and wear, and a good flexible feeling (Section 0003).

Although, the prior art does not explicitly teach the claimed hand feel, anti-abrasion, anti-yellowing, durable press ratings and anti-shrinking ratings it is reasonable to presume that said properties are inherent to the invention of Takumi. Support for said presumption is found in the use of like materials (i.e., formaldehyde, polyethylene glycol of a specific molecular weight, and an acid catalyst) and in the use of like processes (i.e., method of treating a fabric substrate with said materials and followed by heat curing), which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594

In addition, the presently claimed properties of hand feel, anti-abrasion, anti-yellowing, durable press ratings and anti-shrinking ratings would obviously have been present once the Takumi product is provided. *In re Best*, 195 USPQ 433

*Claim Rejections - 35 USC § 103*

7. Claims 5,6,9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takumi, Japanese Publication 05-059664 as applied to claim above 1, and further in view of Payet, WO 99/58758.

Takumi teaches treating the cellulosic fabric with formaldehyde vapor, however, the published PCT application to Payet discloses a process for making cellulosic fiber containing fabrics wrinkle free by treating the fabric with solution comprising formaldehyde, a catalyst, and an silicone elastomer. Payet further teaches heat curing the treated fabric (Abstract and Page 10, 19-30). The amount of formaldehyde may range from 3 to 5 weight percent (Page 10, 19-30). The amount of catalyst can be up to about 2 weight percent (Page 10, 19-30). The preferred catalyst is magnesium chloride with citric acid (Page 11, 7-10). Payet also teaches adding a non-ionic wetting agent in the amount of .1 weight percent (Page 12, 17-22). Payet teaches formaldehyde imparts durable anti-wrinkling properties to cellulosic fiber containing fabrics (Page 1, 26-31).

As a result of the teachings of Payet one of ordinary skill in the art would be motivated to substitute the specific acid catalyst of Payet to promote the cross-linking reaction between the formaldehyde and cellulose in the invention of Takumi.

With respect to the amount of formaldehyde and addition of surfactants it would have also been obvious to one having ordinary skill in the art to employ the teachings of Payet in the invention of Takumi. Although Takumi teaches treating a fabric with formaldehyde vapor it would have been obvious to one having ordinary skill in the art at the time the invention was

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made to employ the teaching of Payet and treat the cellulosic fiber containing fabrics of Takumi with the formaldehyde solution of Payet. Motivation for this argument is found in the enhanced wrinkle resistance and wetting properties of the Payet invention.

With regard to the catalyst weight percent limitation set forth in claim 11, Payet teaches adding up to 2 weight percent of catalyst. It would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of acid catalyst to further promote the cross linking reaction between the formaldehyde and cellulose. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum range or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 4,207,073

US 3,871,822

US 3,852,829

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070.

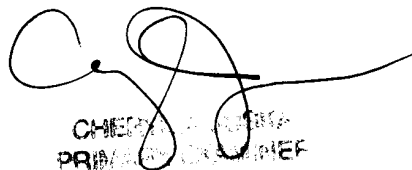
The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

ls  
November 18, 2002

  
CHIEF OF BUREAU  
PRIMACY OFFICE